Department of Energy

Ohio Field Office
Fernald Closure Project
175 Tri-County Parkway
Springdale, Ohio 45246

AUG 8 2006

DOE-0182-06

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE ON-SITE DISPOSAL FACILITY PHASE V DESIGN CHANGE NOTICE 20105-010 - REMOVAL OF CELL 1 CAP MONITORING DEVICES

References: 1) "OSDF Phase V Design Change Notice 20105-010 - Removal of Cell 1 Final Cover Monitoring Devices," dated June 15, 2006

2) Letter, T. Schneider to J. Reising, "Disapproval - OSDF Cell #1 Cap Monitoring Device Removal," dated July 7, 2006

Enclosed for your approval are responses to Ohio Environmental Protection Agency (OEPA) comments on the On-Site Disposal Facility Phase V Design Change Notice 20105-010 - Removal of Cell 1 Cap Monitoring Devices. Upon approval, these comment responses will be incorporated into the revised DCN and drawings.

If you have any questions or require additional information, please contact me at (513) 648-3139.

Sincerely,

Johnny Reising

Johnny W. Reising
Director

Enclosure

cc w/enclosure:
J. Desormeau, OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SRF-5J
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
S. Helmer, ODH
AR Coordinator, Fluor Fernald, Inc./MS6

cc w/o enclosure:
J. Chiou, Fluor Fernald, Inc./MS88
F. Johnston, Fluor Fernald, Inc./MS12
C. Murphy, Fluor Fernald, Inc./MS1

RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE ON-SITE DISPOSAL FACILITY CELL 1 CAP MONITORING DEVICES REMOVAL (DCN 20105-010)

FERNALD CLOSURE PROJECT
FERNALD, OHIO

AUGUST 2006

U.S. DEPARTMENT OF ENERGY

RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE ON-SITE DISPOSAL FACILITY CELL 1 CAP MONITORING DEVICES REMOVAL (OSDF PHASE V - DCN 20105-010)

COMMENTS

1. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: Pg #: Line #: Code:
Original Comment #: 1
Comment: Ohio EPA does not believe the approach for partial removal and abandonment of the Pressure Tranducer and Settlement Plate monitoring devices is protective of the liner system and likely present unacceptable risk of puncturing the liner in the proposed final state. The potential for a load (vehicle traffic) placed upon the top of the PVC pipe pushing the pipe or the rod through the liner presents a long-term threat to the integrity of the OSDF. An alternative approach to dealing with these devices is necessary.

Response: To protect the liner system from puncturing the geosynthetic liner system, 24-inch diameter RCP section and stainless steel checkered plate will not be removed. With this approach existing vegetation at monitoring locations will not be disturbed. After removal of the pressure transducers PVC riser will be filled with drainage layer material and open end of the PVC riser will be capped.

Action:
1. Revise Drawings 90X-5500-E-00581 and 90X-5500-G-00577 and incorporate the above comment response.

2. Revise Work Plan Articles B.3.b, B.3.c, and B.3.d and incorporate the above comment response.

2. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: Pg #: Line #: Code:
Original Comment #: 2
Comment: The LMICP will need to be revised to include specific inspection criteria for OSDF Cell #1 to monitor the proposed actions to assess potential failure mechanisms.

Response: Inspection Component 4E on the OSDF Cell Cap Post Closure Inspection Checklist (Appendix D of Volume II of the LMICP) includes monitoring the locations where Cell 1 monitoring equipment has been removed.

Action: Text will be included in Section 3.2.1 of Volume II of the LMICP that will discuss the inspection of the former Cell 1 monitor locations.

3. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: Pg #: Line #: Code:
Original Comment #: 3
Comment: At any location where soil is disturbed and seeding is required, matting should also be placed in accordance with the OSDF seeding spec.

Response: Agree. At locations where soil is disturbed matting will be placed in accordance with the technical specification Section 02930.

Action: 1. Add the following General Note on Drawings 90X-5500-E-00581and 00591 and 90X-5500-G-00577:

"At locations where soil is disturbed matting will be placed in accordance with the technical specification Section 02930."

2. Revise Work Plan Articles B.3.b, B 3.c, B.3.d, B.3.e, and B.3.f to incorporate the above comment response.

4. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: B.1.b Pg #: 1 Line #: Code: c
Original Comment #: 4

Comment: The text requires that the work be performed to minimize impacts to existing facilities including valve houses, final cover, drainage system, roads, etc. The Plan provides no further details or requirements. Lists of actions, prohibitions and requirements designed to prevent damage to the cover and the established vegetation should be developed, including ways to minimize the compaction of soil. Limitations on vehicle weight, turn radius and tire pressure should be included as well as prohibiting activity when the ground is soft. Where at all possible work should be completed with hand tools.

Response: Agree. Following requirements will be added to the Work Plan in Article B.1:

"c. Perform work at the OSDF Valve House - 1 (VH-1) in accordance with the OSDF System Plan for the Leachate Conveyance System and Safe Work Plan for removal of the monitoring system components at VH-1.

d. Use only rubber tire equipment with tire pressure less than 10-psi unless otherwise approved. Do not operate any equipment when the final cover is soft and wet. To minimize the impact to the final cover system, where at all possible, use hand tools to perform the work."

Action: Revise Work Plan Article B.1 to incorporate the above comment response.

5. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: B.3.b Pg #: Line #: 2nd paragraph Code: c
Original Comment #: 5

Comment: The text states that the pressure transducer PVC riser will be filled with cement grout. The drawings show that the bottom 12 inches of the riser is pierced by a series of 3/8-inch holes. Describe the properties of the grout or other actions to be taken to prevent the grout from eventually migrating over the years into the drainage layer. Why is grout preferable to filling with a porous media in the lower portion?

Response: PVC riser pipe will be filled with drainage layer material and capped with PVC cap.

Action: 1. Add the following General Note on Drawing 90X-5500-G-00577 and 90X-5500-E-00581:

"Fill PVC riser with drainage layer material and cap the riser with PVC cap."

2. Revise Work Plan Articles B.3.b, B.3.c, and B.3.d and incorporate the above comment response.

6. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: B.3.b Pg #: Line #: Code:
Original Comment #: 6
Comment: The text states that the projecting section of the PVC riser will be cut and removed. How will the riser be cut and why can't the riser be cut lower into the vegetative layer? Are there devices which can cut the pipe from the inside?

Response: To minimize the impact to the vegetative layer PVC riser pipe will be filled with drainage layer material and capped.

Action: Revise Work Plan and drawing to incorporate the above comment response.

7. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: B.3.d Pg #: Line #: Code:
Original Comment #: 7
Comment: All settlement plates should be surveyed in one final time prior to removal.

Response: Agree. Settlement Plates will be surveyed before abandoning in-place.

Action: Revise Work Plan Article B.3.d to incorporate the above comment response.

8. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: B.3.d Pg #: Line #: Code:
Original Comment #: 8
Comment: What prevents removal of the 1-inch diameter stainless steel pipe? Can it not be pulled from the PVC pipe?

Response: The 1-inch stainless steel rod is welded to steel plate at the bottom. Therefore, the rod cannot be pulled from the PVC riser.

Action: No action required.

9. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: B.3.e Pg #: Line #: Code:
Original Comment #: 9
Comment: Upon removal of the junction box, all layers of the cap should be replaced to match the surrounding cap layers (e.g., replace granular layer).

Response: Agree. All layers disturbed during the removal of junction boxes will be replaced conforming to the Typical Section for the Final Cover System shown on Drawing 90X-6000-G-00396.

Action: 1. Add the following General Note on Drawing 90X-5500-E-00591:

"All layers disturbed during the removal of junction boxes will be replaced conforming to the Typical Section for the Final Cover System shown on Drawing 90X-6000-G-00396."

2. Revise Work Plan Articles B.3.eand B.3.f to incorporate the above comment response.

10. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: Pg #: Line #: Code: c
Original Comment #: 10

Comment: The drawings show that roughly 2,000 running feet of 2-inch and 4-inch PVC conduit will remain buried in the cap at a depth of 7 inches. Runs of hundreds of feet straight up-and-down the slope will remain after this change is implemented. In order to prevent the conduits from becoming preferential flow paths or sinks for soil transport, measures must be implemented to plug these runs. All wiring should be pulled from the conduits.

Response: Open ends of the PVC conduits will be capped with PVC caps to prevent the preferential paths or sinks for soil transport. Where accessible, wiring will be pulled from the conduit.

Action:
1. Add the following General Note on Drawing 90X-5500-E-00591:

   "Where accessible, pull wiring and close open end of the PVC conduit with PVC cap before backfilling with vegetative layer and topsoil materials."

2. Revise Work Plan Articles B.3.e and B.3.f to incorporate the above comment response.